WHAT IS CLAIMED IS:

1. A composition comprising an isolated nucleic acid molecule which encodes a Pvs25 polypeptide and hybridizes under stringent conditions to SEQ ID NO:3.

2. The composition of claim 1, wherein the isolated nucleic acid has a sequence as shown in SEQ ID NO:3.

3. A composition comprising an isolated nucleic acid molecule which encodes a Pvs25 polypeptide having an amino acid sequence as shown in SEQ ID NO:4.

4. A composition comprising an isolated Pvs25 polypeptide.

5. The composition of claim 4, wherein the Pvs25 polypeptide has an amino acid sequence as shown in SEQ ID NO:4.

6. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a Pvs25 polypeptide in an amount sufficient to induce an immune response in a susceptible organism.

7. The composition of claim 6, wherein the Pvs25 polypeptide comprises an amino acid encoded by the nucleic acid of claim 1 or the polypeptide of claim 4.

8. The composition of claim 6, wherein the Pvs25 polypeptide comprises an amino acid sequence encoded by the nucleic acid of SEQ ID NO:3 or an amino acid having the sequence as set forth in SEQ ID NO:4.

9. A method of inducing an immune response against Pvs25 on the surface of *Plasmodium vivax* ookinetes, the method comprising administering to a susceptible organism a pharmaceutical composition comprising a Pvs25 polypeptide in an amount sufficient to induce an immune response.

10. The method of claim 8, wherein the Pvs25 polypeptide in the pharmaceutical composition is recombinantly produced.

11. The method of claim 8, wherein the susceptible organism is a human.

12. The method of claim 8, wherein the Pvs25 polypeptide in the pharmaceutical composition is on the surface of a recombinant virus.

13. A method of inducing an immune response against Pvs25 on the surface of *Plasmodium vivax* ookinetes, the method comprising administering to a susceptible organism a pharmaceutical composition comprising a nucleic acid encoding a Pvs25 polypeptide in an amount sufficient to induce a transmission blocking immune response.

14. The method of claim 16, wherein the susceptible organism is a human.

15. An immunogenic composition capable of eliciting an immunogenic response comprising an isolated Pvs28 polypeptide and an isolated molecule comprising an epitope.

16. The immunogenic composition of claim 15, wherein the isolated molecule comprising the epitope is a polysaccharide.

17. The immunogenic composition of claim 15, wherein the isolated molecule comprising the epitope is a polypeptide.

18. The immunogenic composition of claim 17, wherein the epitope is chemically linked to the Pvs28 polypeptide.

19. The immunogenic composition of claim 18, wherein the immunogenic composition comprises a Pvs28 fusion protein, wherein Pvs28 polypeptide is chemically linked to the epitope by a peptide bond.

20. The immunogenic composition of claim 19, wherein the fusion protein comprises a C terminal Pvs28 domain.

21. The immunogenic composition of claim 19, wherein the fusion protein comprises an N terminal Pvs28 domain.

22. The immunogenic composition of claim 19, wherein the fusion protein comprises a Pvs25 domain.

23. The immunogenic composition of claim 22, wherein the Pvs25 domain comprises a carboxyl region of Pvs25.

24. The immunogenic composition of claim 22, wherein the Pvs25 domain comprises an N terminal region of Pvs25.

25. The immunogenic composition of claim 19, wherein the fusion protein further comprises a flexible chemical linker.

26. The immunogenic composition of claim 25, wherein the flexible chemical linker comprises the sequence GGGPGGG.

27. The immunogenic composition of claim 19, wherein the fusion protein comprises a recombinant polypeptide.

28. The immunogenic composition of claim 15, wherein the immunogenic composition further comprises an adjuvant.

29. The immunogenic composition of claim 28, wherein the composition further comprises alum.

30. A nucleic acid encoding the fusion protein of claim 19.

31. The nucleic acid of claim 30, wherein the nucleic acid comprises yeast preferred codons which enhance translation of the nucleic acid in yeast.

32. The nucleic acid of claim 31, wherein protein encoded by the nucleic acid is secreted from a culture of yeast at a level in excess of 5 mg/L.

33. The nucleic acid of claim 30, further comprising a pharmaceutical excipient.

34. The nucleic acid of claim 30, further comprising a promoter.

35. The nucleic acid of claim 30, further comprising an expression cassette.

36. The nucleic acid of claim 30, further comprising a vector.

37. The vector of claim 36, wherein the vector is expressed in yeast.

38. A cell comprising the nucleic acid of claim 30.

39. The cell of claim 38, wherein the cell is a yeast cell.

40. A method of inducing a transmission blocking immune response in a mammal, comprising administering the composition of claim 15 to a mammal.

41. The method of claim 40, wherein the composition is administered intramuscularly, intradermally, or subcutaneously.

42. The method of claim 40, wherein the composition is administered to the mammal with an adjuvant.

43. The method of claim 42, wherein the adjuvant is alum.

44. A composition comprising an isolated nucleic acid molecule encoding a *Plasmodium vivax* Pvs28 polypeptide lacking at least one N-linked glycosylation site.

45. The composition of claim 44, wherein the nucleic acid encodes a polypeptide comprising a sequence as set forth in SEQ ID NO:2, excepting that the amino acid residue corresponding to residue 130 of SEQ ID NO:2 is not an asparagine residue.

46. The composition of claim 45, wherein the amino acid residue corresponding to residue 130 of SEQ ID NO:2 is glutamine.

47. A composition comprising an isolated P*lasmodium vivax* Pvs28 polypeptide lacking at least one N-linked glycosylation site.

48. The composition of claim 47, wherein the polypeptide comprises a sequence as set forth in SEQ ID NO:2, excepting that the amino acid residue corresponding to residue 130 of SEQ ID NO:2 is not an asparagine residue.

49. The composition of claim 48, wherein the amino acid residue corresponding to residue 130 of SEQ ID NO:2 is glutamine.

50. A method of inducing a transmission blocking immune response in a mammal, comprising administering the composition of claim 44 or claim 47 to a mammal.